west virginia department of environmental protection

Division of Air Quality
601 57th ST SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

August 13, 2018

Ms. Cristina Fernandez, Director
Air Protection Division
U.S. Environmental Protection Agency Region 3
1650 Arch Street
Mail Code: 3AP00
Philadelphia, PA 19103-2029
Sent via Email

Re: West Virginia Department of Environmental Protection – Division of Air Quality Request for Assistance from EPA Office of Research and Development Assessing Targeted and Non-Targeted Poly and Perfluoroalkyl Substances from Stack Test Data

Dear Director Fernandez:

The West Virginia Department of Environmental Protection - Division of Air Quality (DAQ) is requesting assistance in performing targeted and non-targeted analyses of poly- and perfluoroalkyl substances (PFAS) in industrial air emissions taken directly from certain stacks located at the Chemours facility in Washington Works, WV (near Parkersburg). Compounds of interest include "GenX" (aka C3 dimer acid) and may also include but are not limited to: PFOA, PFOS, C3 dimer acid, C3 dimer acid ammonium salt and other related chemicals at the facility. This also includes a substance for which Chemours has submitted a safety data sheet "E-1" (a known derivative of GenX) as well as other Hexafluoropropylene Oxides (HFPO) or derivatives thereof. The Chemours facility (formerly DuPont) has historically released PFAS into the environment and has contaminated soil and water, including groundwater and river water used as drinking water for many, many citizens of Ohio and West Virginia.

It is our understanding that Chemours has developed a test methodology to capture and quantify the PFAS compound GenX as emitted from their exhaust stacks into the ambient air. Chemours has already conducted stack tests at the facility specifically for GenX (without requesting prior input from DAQ) from selected emission points and has agreed to provide the test protocols and data results to DAQ. The agency has been informed that Chemours plans to conduct further stack tests during the week of August 20th and is willing to provide split samples of the testing to DAQ for independent analysis. Therefore, we tentatively also reached out to the EPA's Office

of Research and Development (ORD) lab in RTP, NC. We have learned that the ORD has the ability to test for not only targeted pollutants, but to also analyze a sample and determine what known or unknown contaminants may be in the sample. We are requesting that ORD review the protocol; provide comments/suggestions that might improve the stack test data and enhance interpretation; analyze split samples for the relevant compounds; provide analyses of all the PFAS compounds that are detected in the samples (within the constraints of the stack test limitations); and provide relevant context and interpretation of the data. The attachments include the protocol information shared with DAQ to date.

Chemours has indicated that beyond August 20th more stack testing may be conducted. If so we would look to ORD for:

- Determining the appropriate sampling and analytical techniques for measuring stack emissions:
  - Test method development
  - Test method review
  - Test plan and approaches consultation
  - Additional measurement issues
- Qualitative analysis of split samples to identify target and nontarget PFAS compounds:
  - Identify the PFAS chemicals emitted
  - Help identify what compounds should be targeted for measurement
- Help understand the environmental fate and transport of GenX and other PFAS chemicals released to the air, including, if possible, deposition and groundwater intrusion:
  - Is there atmospheric conversion of HFPO
  - Are there other chemical transformations of concern
- Prioritize which contaminant(s) need a risk assessment based on what is actually being measured in the environment via the air emission pathway.

The volume of work will be determined by the testing programs and number of samples per run. We would like to instruct Chemours and their test contractors to ship the split samples after extraction to the EPA's ORD laboratory. EPA ORD lab staff and Chemours contractors will need to exchange information such as the volume of sample material, the method of extraction and other necessary laboratory specifications. DAQ requests this assistance in order to quantify the contaminants that are known to be emitted and to identify other contaminants that are emitted by the processes

DAQ needs this evaluation to better understand the historic impact of the operations and better estimate atmospheric deposition and its contribution to groundwater contamination. The evaluation will also provide information on the most appropriate levels of control that will be required to minimize environmental impacts.

We fully understand the extremely short lead time for the request. We really appreciate your help in coordinating this effort and would be grateful for ORD's assistance in completing this very worthy project. This letter is being shared with ORD via email.

Sincerely,

William F. Durham
Director

Attach

cc: Timothy H. Watkins, EPA/ORD
Cynthia Sonich-Mullin, EPA/ORD
Andy Gillespie, EPA/ORD
Regina Poeske, EPA R3
Alice Chow, EPA R3